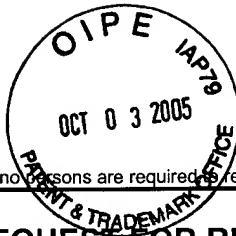


Doc Code: AP.PRE.REQ



PTO/SB/33 (07-05)

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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

4498

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on September 29, 2005

Signature Meghan H. Carr

Typed or printed name Meghan H. Carr

Application Number

09/325,099

Filed

06/03/1999

First Named Inventor

Shvarts

Art Unit

2634

Examiner

Fan, Chieh M.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record.  
Registration number 33,298

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

Matthew E. Connors 35192

Signature

Matthew E. Connors

Typed or printed name

617-426-9180

Telephone number

September 29, 2005

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Analog 4498

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPLICANT:** Shvarts **GROUP:** 2634  
**SERIAL NO:** 09/325,099 **EXAMINER:** Fan, Chieh M.  
**FILED:** 06/03/1999  
**FOR:** TRANSLATION LOOP MODULATOR

**Assistant Commissioner of Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

**Sir:**

**ARGUMENTS TO BE CONSIDERED BY PRE-APPEAL BRIEF  
CONFERENCE PANEL**

Each of independent claims 1, 10 and 19 stands rejected under 35 U.S.C. §103(a) over EP 905879 (to Herzinger) in view of U.S. Patent No. 6208875 (to Damgaard).

The invention is directed to a modulator for a transmission circuit that provides dual band operation and includes two frequency dividers ( $1/m$  and  $1/n$ ) such that the frequency plan for the circuit is expressed as a relationship of the frequency dividers and a single local oscillator frequency ( $F_{LO}$ ). In particular, the local oscillator frequency  $F_{LO}$  and output frequency  $F_{OUT}$  may be expressed as  $F_{LO} = F_{OUT} / (1 + m/n)$  for a first band of operation and  $F_{LO} = F_{OUT} / (1 - m/n)$  for a second band of operation.

The Herzinger reference discloses a transmitter circuit that includes two frequency dividers, but does not disclose that the circuit may be used in a second mode to provide dual band operation. See the Declaration of Robert J. Broughton filed May 24, 2004.

The Damgaard et al. reference discloses a dual band transmitter that includes tunable

voltage controlled oscillators (VCOs) that are adjusted to switch between bands. Again, see the Declaration of Robert J. Broughton filed May 24, 2004. It was an objective of the invention to avoid switching between VCOs or tuning VCOs to provide dual band operation.

In the final office action mailed July 27, 2005, it is stated that claim 1 does not require that the first and second dividers are employed to switch the operation between the first mode and the second mode (final office action of 7/27/2005, page 14). Claim 1, however, clearly states that the divide by  $m$  and divide by  $n$  frequency dividers are employed to provide that  $F_{LO} = F_{OUT} / (1 + m/n)$  in said first mode of operation and  $F_{LO} = F_{OUT} / (1 - m/n)$  in said second mode of operation. The values of  $m$  and  $n$  are specifically chosen to have this particular relationship with  $F_{LO}$  and  $F_{OUT}$ .

The final office action also states that if the values of  $m$  and  $n$  are changed (e.g., from  $m_1, n_1$  to  $m_2, n_2$ ), then the mode of operation may not change, and that if the values of  $m$  and  $n$  are not changed, then the switch from one mode to another mode is not caused by the values  $m$  and  $n$  (final office action of 7/27/2005, page 14). Applicant does not claim, however, that values  $m$  and  $n$  alone switch between modes, but rather that their relationship with  $F_{LO}$  and  $F_{OUT}$  switches between modes as expressed in claim 1. As recognized in the office action, the mode may be switched without changing the values of the frequency dividers. It is rather their functional relationship that is switched.

The test for obviousness under §103 is whether the subject matter of the claims would have been obvious at the time of the invention to one of ordinary skill in the art in view of the cited references. 35 U.S.C. §103(a). As stated by the Court of Appeals for the Federal Circuit:

To reach a proper conclusion under §103, the decisionmaker must step backward in time and into the shoes worn by a person having ordinary skill in the art when the invention was unknown and just before it was made.

In re Fine, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1586, 1598 (Fed. Cir. 1988).

A rejection under §103 must rest on a factual basis without hindsight reconstruction of the invention from the prior art. In establishing a *prima facie* case of obviousness, it is incumbent on the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. Ex parte Clapp, 227 U.S.P.Q. 972, 973 (Bd.Pat.App.&Int. 1985). The requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the applicant's own disclosure. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 U.S.P.Q.2d 1434, 1452 (Fed. Cir. 1988), *cert denied*, 488 U.S. 825, 102 L.Ed.2d 51, 109 S.Ct. 75 (1988). A sustainable rejection under § 103, therefore, requires more than modifying the prior art to achieve the claimed invention. The "mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Gordon, 933 F.2d 900, 902, 221, U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

Applicant submits, therefore, that claim 1 is allowable. Each of claims 2, 3, 5 and 7 - 9 depends directly or indirectly from claim 1 and is also submitted to be in condition for allowance.

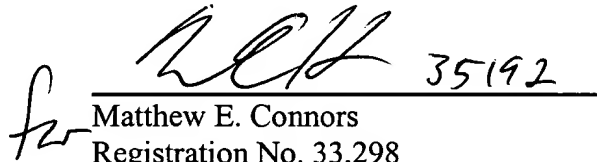
Independent claims 10 and 19 also each require a first frequency divider that provides a divide by *m* function and a second frequency divider that relies on the divide by *n* function, and

provides an output that may be expressed as  $F_{LO} = F_{OUT} / (1 \pm m/n)$ . For the reasons stated above, each of claims 10 and 19 is also considered to be in condition for allowance. Each of claims 11, 12, 14 and 16 - 18 depends directly or indirectly from claim 10, and each of claims 20 - 22 depends directly from claim

Each of claims 1 - 3, 5, 7 - 12, 14 and 16 - 22, therefore, is in condition for allowance.

Favorable action consistent with the above is respectfully requested.

Respectfully submitted,

  
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